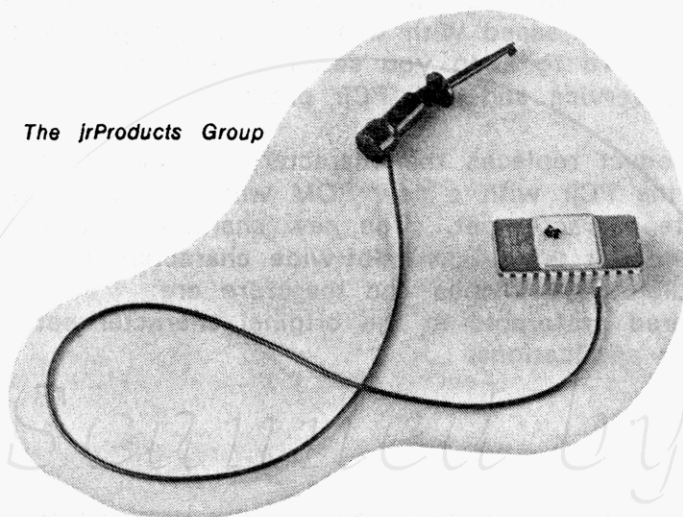


PC Enterprises'

Thin-Font Module

Installation and Operation Manual

The JrProducts Group



Thin-Font Module

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If your PCjr has not already been set up at this time, please do so before installing this option.

This carton should contain the following:

- * Thin-Font Module
- * Installation and Operation Manual
- * Warranty Registration Card

Please inspect this package to determine whether any item appears missing or damaged. If any item is missing or damaged report the missing or damaged item to the place of purchase as soon as possible.

INTRODUCTION

Congratulations on your purchase of a PC Enterprises product. We expect our product to serve you reliably for many years to come. We hope you will be pleased with this product and pledge to try very hard to keep you satisfied with our support, service and new PCjr products.

This product replaces the character-generator ROM inside the PCjr with a new ROM which includes an alternate character set. The new character set is only one dot wide. One-dot-wide characters have more distinctive shapes and therefore are considered preferable to the original character set in many applications.

Copyright Notice

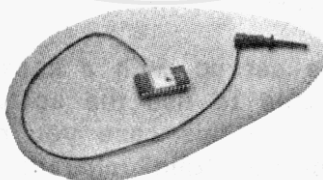
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INSTALLATION REQUIREMENTS

The PCjr character-generator ROM is a 24 pin integrated circuit (IC) module. Installation requires the existing character-generator ROM be removed and replaced with the Thin-Font module. This can be easily accomplished if your system's character-generator ROM is plugged into a socket. If your character-generator ROM is not plugged into a socket it should be removed by someone who has the necessary training and skill to remove IC's which are soldered to the computer board.

SYSTEM REQUIREMENTS

64K PCjr

TOOLS REQUIRED

Medium sized flat-blade screwdriver or small coin.
Short handled flat-blade screwdriver,
or IC extraction tool.

COMPATIBILITY

The Thin-Font module is provided with software which enables you to alternate between the "Normal" and "Thin" character sets. To provide this function an address line of the Thin-Font module must be connected to a hardware location which can be switched high or low with software.

The hardware location we decided to use is bit 3 of Port B (PB3 on the 8255A-5 PPI). This bit is the bit which is normally used to control the motor of the cassette recorder.

If your system is set up with a cassette recorder you will not be able to use the software provided with this product. In this case you may prefer to permanently select the "thin" character set by connecting the EZ hook directly to pin 24 of the Thin-Font module. To permanently select the

"normal" characters connect the EZ hook to pin 12 of the Thin-Font module.

WHAT YOU SHOULD KNOW

The PCjr character-generator ROM is a 2K byte Read Only Memory (ROM) device which is pin compatible with industry standard 2716 (2K) and 2732 (4K) memory devices. The Thin-Font module is a 2732 UV Erasable Programmable Read Only Memory (EPROM).

Replacing the existing 2K device with a 4K device permits the addition of a second character set. Pin 21 of the Thin-Font module is used to select either the lower or upper 2K segment. When this pin is held at a logic low level a two-dot-wide character set is selected. When pin 21 is held at a logic high level the one-dot-wide character set is selected. The wire attached to the Thin-Font module connects pin 21 to a hardware location which can be switched low or high with the software provided.

A window is on top of the device which enables the device to be erased when exposed to UV (ultra violet) light. To be sure your EPROM is not accidentally erased, do NOT remove the label on the top of the module which covers this window.

BEWARE OF STATIC

The Thin-Font module, like all integrated circuit modules, can be damaged by static electricity. Do not remove the Thin-Font module from its protective anti-static packaging until you are ready to install the product.

Static problems are far more common when the humidity is low. For this reason, consider yourself fortunate if it happens to rain or snow on the day you install your Thin-Font module. As a

general rule, static problems are least likely to occur on a damp morning and most likely to occur on those dry winter nights.

All this said, there's no need to wait for a rainy day if you take a few simple precautions. Treat this advice seriously, and you will greatly reduce the chances that static might ZAP your equipment.

1. Do NOT remove the Thin-Font module from its protective anti-static packaging until you are sitting down alongside your PCjr and ready to begin the installation.
2. AVOID unnecessary handling of the Thin-Font module and the PCjr circuit boards. Especially try to avoid touching metal parts of the module and circuit boards.
3. Do NOT attempt to install this product while wearing any type of rubber sole shoes or sneakers. Rubber soles prevent static from dissipating through your feet to ground.
4. Most of all, do NOT walk across a carpeted area while holding an unprotected static sensitive device in your hands!

INSTALLING THE SOFTWARE

When you first start your computer the Thin-Font module will automatically select the "thin" character set. Two methods of changing the character set selected with software are provided.

The first program is called **THINFONT**. The first time you use the Thin-Font module you will probably prefer to use this program as it permits you to alternate between character sets by pressing a combination of "hot keys".

The **THINFONT** program, like any other memory resident program, will occupy a small amount of memory until you power off your system (or perform a system reset by pressing Ctrl, Alt, and Del simultaneously).

The second program is called **SETFONTS**. This program permits you to select either character sets without remaining memory resident.

USING THE THINFONT PROGRAM

The **THINFONT** program allows you to change the character set at any time by pressing a combination of keys. The keys which are pressed to change character set are called "hot keys". Default hot keys are the Alt, left Shift, and right Shift keys (all at the same time).

FORMAT:

THINFONT [?][[/N][[/T] [/([A][C][L][R])x]

Note: Be sure to notice that there is a space immediately **BEFORE** the slash.

? - show help information
/N - set to normal characters
/T - set to thin characters

A - Alternate key required
C - Control key required
L - Left shift key required
R - Right shift key required
x - The alphanumeric key required

EXAMPLE: **THINFONT** /T

This command selects the thin character set. The default hot keys are not changed. To alternate character sets hold down the two Shift keys while pressing the Alt key.

EXAMPLE: THINFONT /N

This command selects the normal character set. You may alternate between the two character sets in the same manner as described above.

Changing the "Hot Keys"

THINFONT's hot key selection can be changed by adding a parameter to the command which describes the key combination you wish to use.

EXAMPLE: THINFONT /T /{AL}F

This command selects the thin character set. The font can be changed by holding down the Alt and left Shift keys while pressing the F key.

USING THE SETFONTS PROGRAM

The non-resident program is called SETFONTS. This program must be executed from the DOS prompt each time you wish to change the character set.

FORMAT: SETFONTS [?]{[/N]}[/T]

- ? - show help information
- /N - change to normal characters
- /T - change to thin characters

Example:

SETFONTS /N

Selects the normal character set.

INSTALLING THE HARDWARE

1. Turn off all power to your computer and its accessories and remove all power cords from the wall.

2. Unplug all cords from the rear of the PCjr and turn the PCjr around so the rear is facing you.
3. Wait five minutes to allow the PCjr and all internal options to cool.

WARNING: Serious shock hazards can exist inside the PCjr. Make sure all power cords are unplugged before you remove the cover.

4. Using a medium sized flat-blade screwdriver or small coin remove the PCjr's top cover. See Diagram A.

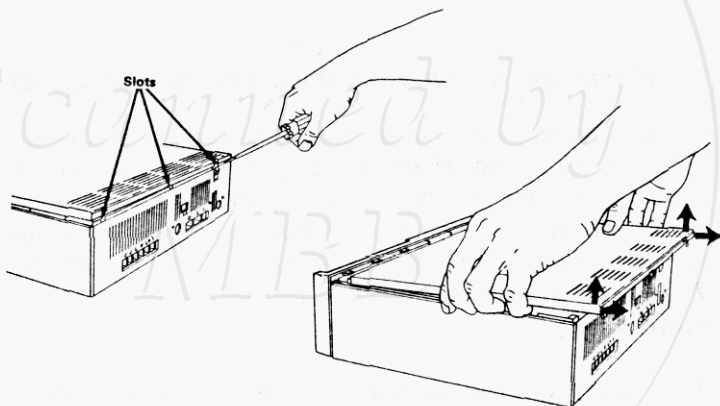


Diagram A

5. Turn the PCjr around so the front is facing you.
6. Locate and remove the Diskette Drive Adapter card by lifting it up and out of the PCjr. Place the card, with the disk drive signal cable still attached, anywhere which is out of the way. See Diagram B.

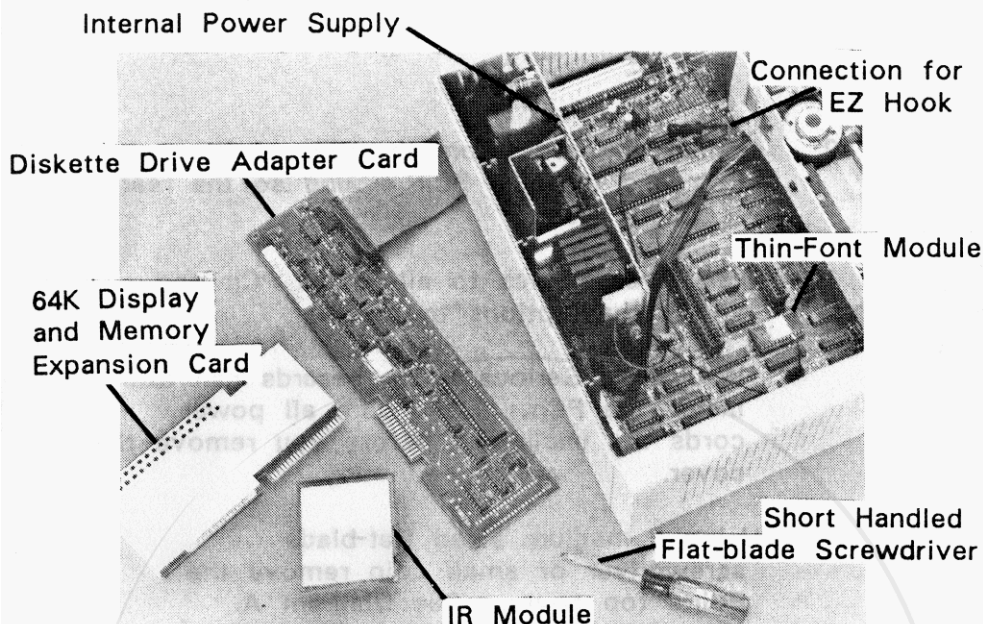


Diagram B

(Photo shows Thin-Font Module properly installed)

Note: Next, you will be instructed to remove the 64K Display and Memory Expansion card and the Internal Power supply card. The purpose is to make it easier to get to the character-generator chip. If you have small hands, you may wish to omit steps 7 and 8 and to proceed directly to step 9.

7. Locate and remove the 64K Display and Memory Expansion card. This card can also be removed by simply lifting it up and out of the PCjr. Place the card alongside the PCjr.
8. Locate and remove the PCjr Internal Power Supply card. This card, like the Disk Drive Controller card, can be removed by lifting it up and out of the PCjr with the wires still attached. Place the card anywhere which is out of the way.
9. Locate and remove the IR module. To remove this module, which looks like a

square box, just grasp firmly and pull upward. It will pop out. In some cases, a fair amount of force will be required, however, in all cases the module will pop out if you pull hard enough. No screws are used.

10. Locate the 24 pin IC which is mounted just behind the IR module. This is the character-generator ROM. It must be socketted for easy removal.
11. To remove the character-generator ROM wedge a short handled flat-blade screwdriver between the character-generator ROM and the ROM's socket... then pry the ROM up as evenly as possible, being careful not to bend the pins. This can often be done by inserting the screwdriver, then rotating. If you have a 24 pin IC extraction tool you may use it instead of a screwdriver. See Diagram C.

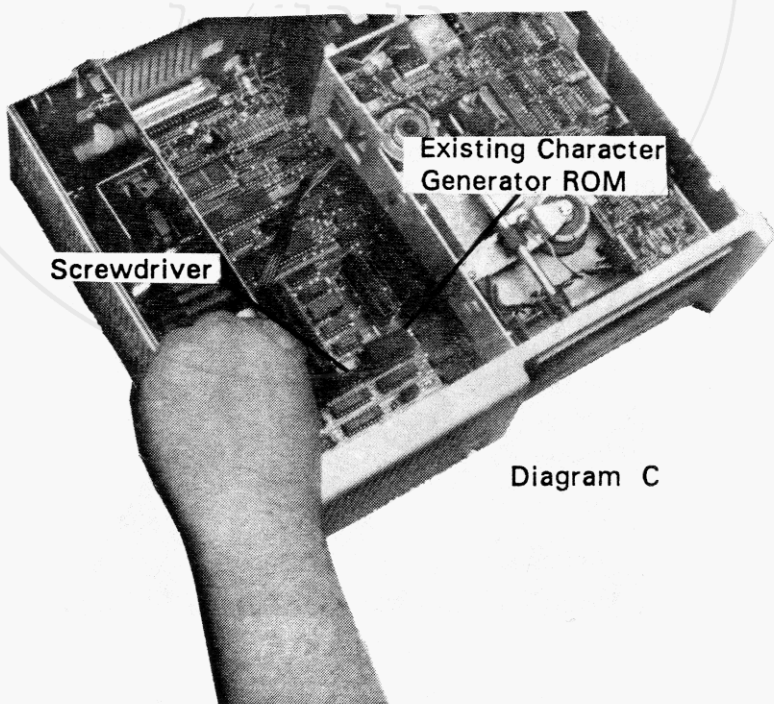


Diagram C

12. Orient the Thin-Font module in the proper direction. The wire which attaches to the module should face the front of the computer. Carefully align the pins with the socket then press it firmly into place. Examine the module and make sure all of the pins have gone into the socket. See Diagram D.

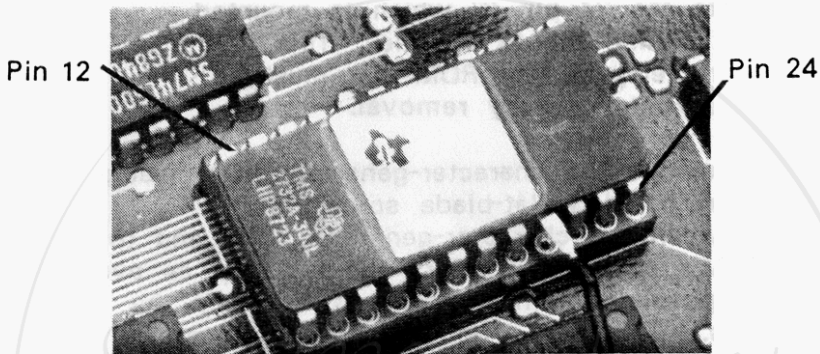


Diagram D

13. Next, refer to Diagram E to locate the point where the EZ hook will be attached. Locate the 10K resistor which is mounted alongside the rear of the diskette drive mounting shelf. This resistor is a small tubular device which is often tan in color. It may be marked with four bands: brown, black, orange and gold.

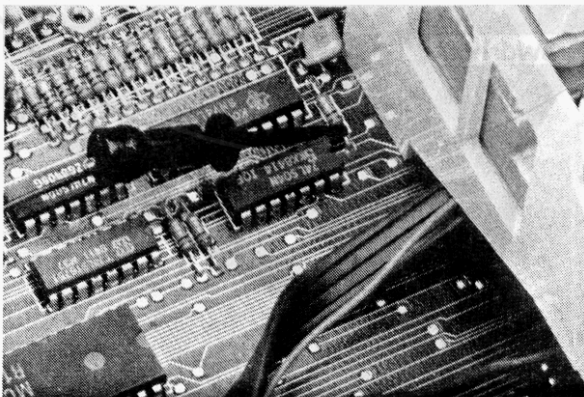


Diagram E

14. Attach the E-Z Hook to the metal part of this resistor which is closest to the front of the PCjr. To actuate the EZ hook just compress the E-Z Hook's body.
15. Reinstall the IR module. To do this, line up the pins with the socket underneath the module, then press firmly downward until it "snaps" into place.
16. Reinstall the Diskette Drive Adapter card, 64K Display and Memory Expansion card, and Internal Power Supply card.
17. Reinstall the PCjr's top cover.
18. Plug all other attachments into the back of the PCjr and plug all power cords back into the wall sockets.

IF YOU HAVE A PROBLEM

Click-like sound. You will hear a click-like sound each time you change the character set. This is normal. The click is the sound of the cassette motor relay, which is used to select the desired character set.

Software does not work. The EZ hook is not connected at all, or it is not connected to the proper location.

Can not select alternate font in graphic modes. This is normal. Graphic modes use an "all points addressable" mode and therefore define their own characters instead of using the PCjr character-generator ROM.

Error B message. This is a keyboard error. This error is displayed if you press a key while your computer is booting or if the IR receiver is not properly installed. If you are sure you did not

touch the keyboard while the system was booting, remove the IR receiver and examine the pins. In most cases you will find one of the pins bent to the side so that it can not align properly when the IR module is installed. Straighten the pin and re-install the module. See Diagram F.

Error A message. This is a memory error. Examine the 64K Display and Memory Expansion card to insure that it is properly installed. In most cases, the problem will go away if you remove then reinstall this card.

Error H message. This is a diskette drive error. Examine the Diskette Drive Adapter card, and the cables which attach to the Internal Power Supply card.

White screen or system dead. This is usually a power supply problem. Be sure that everything is plugged in, and that the power transformer (the black box) is properly connected to the back of the PCjr. Note that there are two pins which should be plugged into the rear of the power supply board.

Be sure pins
were not bent

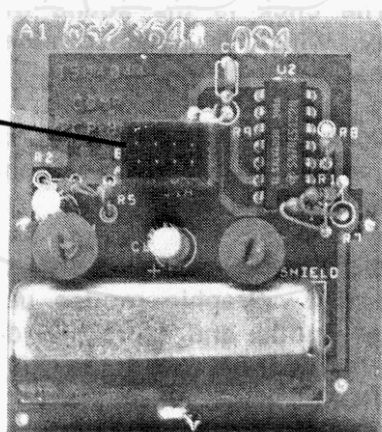


Diagram F

We'd Like to Know

We are always interested in your comments concerning our products and manuals. If you have any suggestions for improvements we would like to hear them. Please forward your comments to:

About Your Manual
PC Enterprises
PO Box 292
Belmar, NJ 07719

Other PCjr Products

The jrProducts Group of PC Enterprises has been dedicated to developing new products and services for PCjr owners since 1984. We offer disk drives which snap on top of the PCjr, memory expansion and other sidecars, as well as a complete selection of keyboards and keypads. Other products include PCjr serial cables, keyboard cables, joysticks, joystick adapters, Keyboard Buffer and Speed up Cartridges, System Configuration Cartridges, dust covers, books, printers, monitors and countless other PCjr products.

A free catalog of available PCjr products can generally be obtained by calling our toll free 800 phone number: 1 800-922-PCJR. The catalog includes photos, descriptions and prices.

In addition, we offer a memory upgrade service for those who have already purchased a 128K PCjr sidecar such as the Tecmar jrCaptain, Microsoft Booster, or IBM Memory sidecar and would like to upgrade to 640K.

You may also receive a free catalog if you complete and return the warranty registration card included with this product. For immediate information, ask your dealer or contact PC Enterprises direct.

Limited Warranty

PC Enterprises warrants the original purchaser of this product that it will be in good working order for the one year period from the date of purchase from PC Enterprises or authorized dealer. Should this product fail to be in good working order at any time during the warranty period, PC Enterprises will, at its option, repair or replace the product at no additional cost except that as stated below. Repair parts and replacement products will be furnished either reconditioned or new. All replaced parts and products become the property of PC Enterprises. This warranty does not include service to repair damage to the product as a result of misuse, disaster, accident, or modification of the product.

Warranty service may be obtained by shipping the product US Mail to PC Enterprises and providing proof of purchase date. You agree to insure the product or assume the risk of loss or damage in transit, to prepay shipping charges and to use the original shipping container or equivalent. Contact PC Enterprises prior to returning any products for repair to receive a Return Authorization (RA) number. Any products returned without an RA number will be indiscriminately refused.

All express and implied warranties for this product including the warranties of merchantability and fitness for a particular purpose, are limited in duration to the one year period from the date of purchase, and no warranties, whether express or implied, will apply after this period. Some states do not allow limitations on how long an implied warranty lasts, so the above may not apply to you.

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